

WHAT IS CLAIMED IS:

20 A support for use in detecting the presence of a target nucleic acid comprising an optically smooth, flat light-reflecting surface, said surface having a nucleic acid complementary to said target nucleic acid bound thereto.

21 The support according to claim 20 wherein said nucleic acid bound to said surface is bound by covalent bonding.

22 The support according to claim 20 comprises silicon or glass.

23 The support according to claim 20, wherein said light reflecting surface comprises a layer of aluminum or silicon.

24 The support according to claim 23, wherein said layer of aluminum or silicon is a layer of a compound selected from the group consisting of silicon dioxide, silicon monoxide, and aluminum oxide.

25 The support according to claim 24, wherein said support further comprises an anti-reflection layer.

26 The support according to claim 20, wherein said nucleic acid bound to said surface is indirectly bound through an intermediate molecule bound to said surface.

27 The support according to any one of claims 20-26, wherein said support further comprises said target nucleic acid bound to said complementary nucleic acid, wherein reflectance from said light-reflecting surface is altered in comparison to reflectance by said light-reflecting surface in the absence of said bound target nucleic acid.